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INTERMEDIATE WATER VENTILATION IN THE OKHOTSK SEA DURING THE LAST GLACIAL MAXIMUM AND THE HOLOCENE.

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The Okhotsk sea has been suggested as a possible source for deep water formation in the Northwestern Pacific during the last glaciation. To estimate the paleo-ventilation rate, we used the differences between AMS radiocarbon dates on benthic and planktonic foraminifera from the same sediment samples.

Core V34-90, from the south slope of the Akademia Nauk Rise (depth 1560 m), shows a rather constant age difference of 1200-1300 years between Uvigerina parvacastata and Neogloboquadrina pachyderma sin. in Holocene and late glacial time. Two deglacial samples show possibly larger differences of 1550-1820 years. In core V34-98, recovered from flat bottom east of the Akademia Nauk Rise (1175m), age differences between Uv. parvacastata and N. pachyderma s. are less than for V34-90 during Holocene and deglacial time (800-1060 years), as expected given the shallower water depth. However, two samples from the last glacial maximum show much greater age differences between Uv. parvacastata and Uv. akitaensis and N. pachyderma: 1970 and 2650 years. A speculative explanation for these large offsets is that glacial benthic foraminifera were influenced by pore water chemistry. These preliminary data show little evidence for intermediate or deep water formation in the Okhotsk Sea during the last glacial maximum

The planktonic foraminifera $\delta^{18}O$ records show a two-step decrease (termination 1A and 1B). Records of $\delta^{13}C$ of Uv. akitaenses in the core V34-98 and Uv. senticosa in core V34-90 show no glacial-Holocene differences. This behaviour is similar to that documented previously in NW Pacific intermediate water to depths of 2500-2700 m. Sedimentation rates during glacial time were greater than Holocene rates in both cores.

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